

REMARKS

**I. Second Supplemental Information Disclosure Statement**

Applicants submit herewith a Second Supplemental Information Disclosure Statement (IDS) by Applicant (1 page), listing references which are or may be material to the examination of the subject application. Copies of the listed references are enclosed. It is respectfully requested that they be made of record in the file history of the application.

Identification of references in the IDS is not to be construed as an admission by applicants or attorneys for applicants that such references are available as "prior art" against the subject application. The right is reserved to antedate any listed reference in accordance with standard procedures. The required fee of \$180 pursuant to 37 CFR 1.17(p) is also enclosed.

**II. Double Patenting Rejection**

The Examiner provisionally rejected claims 6 and 10 under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over certain claims of Application Serial No. 09/289,457. While applicants disagree with the Examiner's position and also believe such a rejection is premature, to advance the prosecution of the application, applicants are willing to submit a Terminal Disclaimer upon issuance of a patent resulting from Application Serial No. 09/289,457.

**III. Rejection of Claims 1- 35 Under 35 U.S.C. §103**

Claims 1-6 and 29-35 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 5,369,763 to Biles. In addition, claims 7-28 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Biles in view of U.S. Patent No. 5,987,454 issued to Hobbs. These rejections are being traversed below.

Claims 1, 2, 5-8 and 10-12 have been amended to improve their form. Accordingly, a Version with Markings to Show Changes Made to these claims is attached hereto as Appendix A. In addition, claims 4 and 9 have been deleted.

An aspect of the invention, represented by claims 1 and 7, is directed to a technique for on-the-fly updating of search output that is responsive to a query. This is accomplished by comparing responsive database records from databases with a responsive update record from an update database associated with such databases. In instances where there are more than one responsive database records that correspond to (e.g., records that are the same or substantially the same as) the update record, the database records are excluded from the search output when the update record includes a predefined setting (e.g., a delete setting). Because the claimed invention excludes records based on a setting in the update record, circumstances in which the user receives extraneous query output can be effectively controlled.

Excluding one or more selected records from the responsive records effectuates the update, or deletion, of one or more records that are responsive to a query. Records that are stored in the searchable databases, however, are not updated or deleted. The inventive technique therefore enables responsive records to be updated, or excluded, on-the-fly based upon the parameters of the search request and the update database data.

Biles discloses a data storage and retrieval technique that separates information regarding the expertise of individuals into four files which can be independently and separately accessed. (Col. 8, line 64 - col. 9, line 22). Biles further discloses methods for deleting, purging and removing records stored in one or more of the four files. Biles, however, does not teach or suggest excluding one or more database records that are responsive to a query from a search output when an "indication is made" in the update record corresponding to the one or more database records as amended claims 1 and 7 now recite.

The Examiner postulated that Biles, at col. 27, lines 12-17, col. 34, lines 49-67, col. 35, lines 1-21, and col. 39, lines 49-61, discloses such excluding element. However, this postulation by the Examiner is incorrect. The cited portion of column 27 relates to a process of deleting duplicate records stored in the searchable Composite Catalog Database. The cited portion of column 34 relates to purging records (such as those records that have an "error") from the searchable Subject Database during the creation and/or update process of such database. Similarly, the cited portion of column 35 relates to the purging of all records in the searchable

Subject Database that is marked for deletion. Finally, the cited portion of column 39 relates to the removal of duplicate records from a searchable merged database. Thus, Biles actually teaches away from the claimed invention by deleting, purging and removing records from searchable databases, as opposed to “except[ing] one or more of the database records” from “the search output” as amended claims 1 and 7 now recite.

Nor does Hobbs teach or suggest the inventive technique for updating a search output by “including in the search output the records responsive to the query except one or more of the database records which correspond to the update record when the indication is made in the update record” as amended claims 1 and 7 recite. Hobbs is directed to a technique for selecting multimedia information from databases that can be accessed via the Internet. Hobbs further discloses an apparatus for dynamically augmenting contents of at least one file of information on a first network by using a query to search the contents of a second network. (Col. 8, lines 30-52). After the search is performed on the second network, graphic symbols are displayed “for enabling the user to select one of a plurality of databases.” (Col. 10, lines 4-19). However, nowhere does Hobbs teach or suggest “except[ing] one or more of the database records” that are responsive to the query, as amended claims 1 and 7 recite. The deletion of records is only mentioned by Hobbs in the context of explaining the prior art problem of “dead ends.” The reference to deleted search results does not teach or suggest excluding database records that are responsive to a user’s query. Instead, these “dead ends” are records that no longer exist, but for which the link associated to the deleted file is sent to a user. Because the record is previously deleted (i.e., deleted prior to any searching by a user), the reference to “dead ends” by Hobbs does not meet the limitation of including in the search output the responsive records “except one or more of the database records” when the indication is made in an update record as recited in claims 1 and 7. In fact, Hobbs teaches away from the invention by “augmenting” content (Col. 7, lines 34 - col. 9, line 37; col. 26, line 21 - col. 34, line 61), as opposed to excluding database records that are responsive to a user’s query as in the claimed invention.

In addition, neither Biles nor Hobbs teach or suggest a technique for providing a search output responsive to a query including “determining whether an indication is made in an update record” as recited by amended claims 1 and 7.

Accordingly, independent claims 1 and 7, together with their dependent claims, are patentable over Biles and Hobbs, separately or combined.

Another aspect of the invention, represented by claims 12, 20 and 29, is directed to a technique for routing search requests. The technique includes searching a routing database to determine whether a search request should be routed to databases accessible by the receiving server. If it is determined that the search request should be routed to one or more of such databases, the search request is routed to the databases to effectuate the user’s search. Search results are then returned to the user. The claimed invention does not require receipt of two sets of input from the user to identify the appropriate databases for searching and for performing the query searching as in prior art. Rather, the claimed invention allows performing both operations using the same, or a subset of the, search request data provided by the user.

As described above, Biles discloses a data storage and retrieval technique that separates information regarding the expertise of individuals into four files which can be independently and separately accessed. (Col. 8, line 64 - col. 9, line 22). Although Biles further discloses database identification and query searching, these functions are accomplished by searching a database to identify the appropriate topics to be used “in formulating Subject Query Formulas to be used in searching the appropriate Subject Data Bases 1.” (Col. 27, line 25 - col. 31, line 33). Biles explains that “[t]he Search and Retrieval process involves constructing effective Subject Query Routines which are based on the Subject Query Formulas formulated during the identification process . . .” (Col. 29, lines 20-25). In other words, in the course of searching for the appropriate Subject Data Bases, the method and system in Biles “formulates” another query using Subject Query Routines and Formulas for subsequent searching in the identified databases.

Thus, Biles fails to meet the claim limitations of using a search request for searching a routing database to determine whether the search request should be routed to one or

more databases accessible by the receiving server, and routing the search request to such databases as amended claim 12 recites. In fact, because the user query in Biles is "formulated" during the database identification process, Biles teaches away from the claimed invention which routes the "search request" to the databases of the receiving server. Independent claims 20 and 29 similarly recite routing the "search request" (not a search routine that is "formulated" from a "formula" that is first generated by user input) to the databases accessible by the receiving server: claim 20 recites "routing the search request to the one or more databases accessible by the receiving server if it is determined that the search request should be routed to the one or more databases accessible by the receiving server", and claim 29 recites "if the search of the routing database is successful, routing the search request to a database identified by the routing database".

Nor does Hobbs teach or suggest the inventive technique of routing a search request to a database that has been selected for searching based upon the search request. Although Hobbs discloses network protocol which is addressed to several servers (e.g., Document Server, Proxy server, HTTP server and Database Server (col. 10, line 5-43)), it does not teach or suggest routing a search request to perform a search query upon determining that the search request should be routed to the receiving server (or a second server), as claims 12, 20 and 29 recite. Rather, Hobbs uses the servers to facilitate user accessibility to one or more databases.

Accordingly, independent claims 12, 20 and 29, together with their dependent claims, are patentable over Biles and Hobbs, separately or combined.

### CONCLUSION

In view of the foregoing, each of claims 1-3, 5-8, and 10-35, as amended, is believed to be in condition for allowance. Accordingly, reconsideration of these claims is

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requested and allowance of the application is earnestly solicited.

Respectfully,

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**Appendix A - Version with Markings to Show Changes Made**

1. (Twice Amended) A method [of updating database records] for providing a search output responsive to a query, comprising:

[maintaining one or more update databases with a plurality of update records, the update records including at least one indication of whether a database record should be excluded from a search result;]

searching [a] at least one database for database records responsive to [a query and returning database records responsive to] the query;

searching an update database associated with the at least one database for an update [database records] record responsive to the query [and returning update records responsive to the query];

determining whether an indication is made in the update record; and

[excluding from the search results database records that correspond to returned update records if the update records include an indication that the database record should be excluded from the search] including in the search output the records responsive to the query except one or more of the database records which correspond to the update record when the indication is made in the update record.

2. (Twice Amended) The method of claim 1, [further comprising including in the search results at least one update record that does not include an indication that the database record should be excluded from a search] wherein if the indication is a delete indicator, the update record is also excluded from the search output.

5. (Twice Amended) The method of claim 1, further comprising identifying one or more update databases associated with [a] the at least one database.

6. (Twice Amended) The method of claim 1, further comprising:

maintaining a search-routing database[, said search-routing database including a plurality of search-routing database records comprised of search-routing database fields, said search-routing database fields including a database-identifier field and one or more database fields];

receiving [a] the query from a user, said query comprised of search request data in a plurality of search request fields of predetermined types;

selecting the search request data in at least one of the search request fields;

searching said search-routing database for at least one [or more] database identifier[s], based on the selected search request data; and

routing the query to the at least one database[s] identified by said at least one database identifier[s] and the update database[s] associated therewith.

7. (Twice Amended) A system for [updating database records,] providing a search output responsive to a query, comprising:

a plurality of databases, said databases including database records having database fields; one or more update databases, said update databases including update records having update database fields[, at least one of the update database fields indicating how to update a database record];

a search engine for searching one or more of the plurality of databases for database records responsive to [a] the query, returning the database records responsive to the query, searching at least one [or more] of the update databases associated with the plurality of databases for an update record[s] responsive to the query, [and] returning the update record[s] responsive to the query, and determining whether an indication is made in an update database field of the update record; and

a sorter for generating [results] the responsive records resulting from the search of the databases and the at least one update database[s], and [excluding from the results database records that correspond to update record if the update record include an indication that the database record should be excluded from the search] including in the search output the

records responsive to the query except one or more of the database records which correspond to the update record when the indication is made in the update database field of the update record.

8. (Twice Amended) The system of claim 7, wherein [the generated results include at least one update record that does not indicate that at least one database record should be excluded from the search] if the indication is a delete indicator, the update record is also excluded from the search output.

10. (Twice Amended) The system of claim 7, further comprising:

a search-routing database[, said search-routing database including search-routing database records comprised of search-routing database fields, said search-routing database fields including a database-identifier field and one or more said database fields];

an input device for receiving [a] the query from a user, [said] the query comprised of search request data in search request fields of predetermined types; and

a search router for receiving the query and selecting search request data in at least one of the search request fields;

wherein the [a] search engine is configured for searching said search-routing database for one or more database identifiers, said one or more database identifiers identifying the one or more of the plurality of databases [having database records responsive to said query].

11. (Twice Amended) The system of claim 10, further comprising a table for identifying the at least one [or more] update database[s] associated with the one or more of the plurality of databases [having database records responsive to said query].

12. (Twice Amended) A method of routing search requests, comprising:

receiving a search request at a receiving server, the receiving server having one or more databases accessible for searching;

searching a routing database to determine whether the search request should be routed to the one or more databases accessible by the receiving server; and

if it is determined that the search request should be routed to the one or more databases accessible to the receiving server:

routing the search request to the one or more databases accessible by the receiving server;  
searching the one or more databases [of] accessible to the receiving server; and  
returning the results of the search.